

Amendment(s) to the Claims

The following listing of claims replaces all prior versions and listings of claims in the present application:

Listing of Claims:

Claim 1 (currently amended): A movable mold core spotting apparatus, said apparatus comprising:

a support structure for receiving all or a portion of ~~a mold~~ various molds having at least one moveable core; and

at least one force exerting device, said at least one force exerting device affixed to a portion of said support structure and having a moving portion ~~releasably attached~~ adapted for releasable attachment to said at least one movable core of said various molds;

wherein said at least one force exerting device is affixed to said support structure in a manner that allows the position of said at least one force exerting device to be adjusted as needed to accommodate molds of different size and/or shape and to provide for proper movement of said at least one moveable core associated therewith; and

~~wherein, said at least one movable core is adapted to movably communicate with a portion of said mold, such that by activation of said at least one force exerting device, said at least one movable core may be moved through a desired range of motion~~ mated to and separated from a mating portion of its respective mold as often as necessary during the process of spotting said movable core to said mold.

Claim 2 (original): The movable mold core spotting apparatus of claim 1, wherein said mold has multiple movable cores, each of said movable cores releasably attached to a force exerting device.

Claim 3 (original): The movable mold core spotting apparatus of claim 1, wherein a single force exerting device is releasably attached to, and otherwise adapted to move more than one movable core.

Claim 4 (original): The movable mold core spotting apparatus of claim 1, wherein said at least one force exerting device is a hydraulic cylinder.

Claim 5 (original): The movable mold core spotting apparatus of claim 1, wherein said at least one force exerting device is a pneumatic cylinder.

Claim 6 (original): The movable mold core spotting apparatus of claim 1, wherein said at least one force exerting device is an electric motor and gear assembly.

Claim 7 (canceled).

Claim 8 (original): The movable mold core spotting apparatus of claim 1, further comprising at least one coupling device for releasably coupling said at least one force exerting device to said at least one movable mold core.

Claim 9 (original): The movable mold core spotting apparatus of claim 8, wherein said at least one coupling device is adjustable relative to its point of attachment to each of said at least one force exerting device and said at least one movable core.

Claim 10 (original): The movable mold core spotting apparatus of claim 8, further comprising at least one location indicating device for assisting in the alignment of said at least one coupling device to said at least one movable core.

Claim 11 (original): The movable mold core spotting apparatus of claim 8, further comprising at least one location indicating device for assisting in the alignment of said at least one coupling device to said at least one force exerting device.

Claim 12 (original): The movable mold core spotting apparatus of claim 1, further comprising at least one locating element residing between a top surface of said support structure and a back surface of a backing plate of said mold, said at least one locating element provided to ensure accurate and repeatable location of said mold to said support structure.

Claim 13 (original): The movable mold core spotting apparatus of claim 1, further comprising means for releasably affixing said mold or a portion thereof to said support structure.

Claim 14 (original): The movable mold core spotting apparatus of claim 1, further comprising at least one spacer plate, said spacer plate releasably affixed to a top surface of said support structure and substantially against an edge of a backing plate of said mold, said spacer plate provided to account for the height of said backing plate during the movement of said movable core.

Claim 15 (original): The movable mold core spotting apparatus of claim 1, wherein said at least one force exerting device resides substantially beneath said support structure.

Claim 16 (original): The movable mold core spotting apparatus of claim 1, wherein said at least one force exerting device resides outward of and substantially in line with the movable core to which it is attached.

Claim 17 (currently amended): A method for spotting a movable mold core to a mold, said method comprising the steps of:

(a) placing a mold or a portion thereof onto a support structure, said support structure having at least one force exerting device affixed thereto in a manner that allows for its positional adjustability;

(b) locating at least one movable mold core requiring spotting to a mating portion of said mold;

(c) adjusting the position of said at least one force exerting device as needed to provide for proper alignment with said at least one moveable mold core and to retract said at least one moveable mold core an adequate distance from said mold;

(e d) releasably attaching a movable portion of said at least one force exerting device to said at least one movable mold core requiring spotting;

(d e) moving ~~one or more of~~ said at least one movable mold ~~cores~~ core requiring spotting ~~through a desired range of motion~~ into and out of contact with a mating portion of said mold by activation of said at least one force exerting device;

(e f) checking one or more areas of interest on said movable mold core being spotted and/or one or more areas of interest on a said mating portion of said mold for proper fit therebetween;

(f g) adjusting said one or more areas of interest on said movable mold core being spotted and/or said one or more areas of interest on said mating portion of said mold as required; and

(g h) repeating steps (d e)-(f g) as necessary until the fit between said at least one movable mold core and said mating portion of said mold is acceptable.

Claim 18 (original): The method of claim 17, further comprising providing at least one coupling device for releasably coupling said at least one movable mold core to said at least one force exerting device.

Claim 19 (original): The method of claim 18, further comprising adjusting the location of said at least one coupling device for proper releasable attachment to said at least one movable mold core.

Claim 20 (canceled).

Claim 21 (original): The method of claim 17, further comprising releasably affixing said mold to said support structure.

Claim 22 (original): The method of claim 17, further comprising one or more locating elements for ensuring accurate and repeatable location of said mold to said support structure.

Claim 23 (original): The method of claim 17, further comprising providing at least one spacer plate, said spacer plate releasably affixed to a top surface of said support structure and substantially against an edge of a backing plate of said mold, said spacer plate provided to account for the height of said backing plate during the movement of said movable core.

Claim 24 (original): The method of claim 17, further comprising applying a marking material to said one or more areas of interest on said movable core being spotted and/or one or more areas of interest on said mating portion of said mold, to assist in indicating the fit between said movable mold core being spotted and said mating portion of said mold.

Claim 25 (original): The method of claim 17, further comprising the use of at least one remote actuator to activate said at least one force exerting device.

Claim 26 (original): The method of claim 17, further comprising one or more safety devices adapted to prevent activation of said at least one force exerting device while one or more persons is present within a predetermined zone.

Claim 27 (original): The method of claim 17, wherein said movable mold cores may be moved individually or in groups of various number.

Claim 28 (canceled).

Claim 29 (new): A movable mold core spotting apparatus, said apparatus comprising:

- a support structure for receiving all or a portion of various molds, each having at least one moveable core;

- at least one force exerting device for moving said at least one moveable core into and out of contact with a mating portion of its respective mold;

- a mounting means for affixing said at least one force exerting device to said support structure such that the position of said at least one force exerting device with respect to said support structure can be easily adjusted in three dimensions; and

- a coupling means for providing releasable attachment of said force exerting device to said at least one moveable core;

- wherein, by activation of said at least one force exerting device, said at least one movable core may be mated to and separated from a mating portion of its respective mold as often as necessary during the process of spotting said movable core to said mold; and

wherein said mounting means allows said at least one force exerting device to operate moveable cores on molds of various size and/or shape.

Amendment(s) to the Drawings

The attached drawing sheets include new sheet 6, which includes Figure 6, as well as revised versions of Figures 1-5, which reflect the numbering changes required by the addition of the new drawing sheet. These sheets replace the original sheets 1-5 included with the application as filed. In Figure 6, a single force exerting device is shown to be used to move more than one mold core. The use of a single force exerting device to move more than one mold core is discussed in paragraph [0015]. Consequently, no new material has been added.

Attachments: New sheets 1-6
Annotated sheets 1-5 showing numbering changes